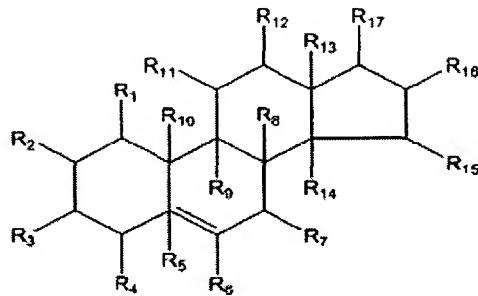


**WHAT IS CLAIMED IS:**

1. A method of inhibiting the formation of amyloid-derived diffusible ligands in a subject in need thereof, comprising administering to the subject a compound of formula (I):



wherein each of R<sub>1</sub>, R<sub>2</sub>, R<sub>4</sub>, R<sub>5</sub>, R<sub>6</sub>, R<sub>7</sub>, R<sub>11</sub>, R<sub>12</sub>, R<sub>15</sub>, and R<sub>16</sub>, independently, is hydrogen, alkyl, hydroxy, amino, carboxyl, oxo, sulfonic acid, or alkyl that is optionally inserted with -NH-, -N(alkyl)-, -O-, -S-, -SO-, -SO<sub>2</sub>-, -O-SO<sub>2</sub>-, -SO<sub>2</sub>-O-, -SO<sub>3</sub>-O-, -CO-, -CO-O-, -O-CO-, -CO-NR'-, or -NR'-CO-; R<sub>3</sub> is a substituent as disclosed at R<sub>3</sub> of the compounds listed in Table 1 and Fig. 1; each of R<sub>8</sub>, R<sub>9</sub>, R<sub>10</sub>, R<sub>13</sub>, and R<sub>14</sub>, independently, is hydrogen, alkyl, hydroxyalkyl, alkoxy, or hydroxy; and R<sub>17</sub> is a substituent as disclosed at R<sub>17</sub> of the compounds listed in Table 1 and Fig. 1.

2. The method of claim 1 wherein the compound is selected from the group consisting of the compounds listed in Table 1.

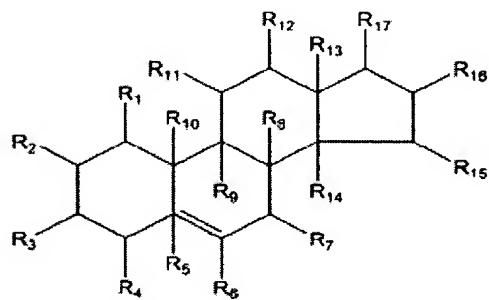
3. The method of claim 1 wherein the compound comprises 22*R*-hydroxycholesterol.

4. The method of claim 1 wherein the compound comprises (22*S*,25*S*)-(20*S*)-spirost-5-en-3β-yl hexanoate.

5. The method of claim 1 wherein the compound is in a dosage form comprising a therapeutically effective amount of the compound.
6. The method of claim 5, wherein the dosage form is selected from the group consisting of tablet, soft gelatin capsule, hard gelatin capsule, suspension tablet, effervescent tablet, powder, effervescent powder, chewable tablet, solution, suspension, emulsion, cream, gel, patch, and suppository.
7. The method of claim 5, wherein the dosage form further comprises a pharmaceutically acceptable excipient.
8. The method of claim 7, wherein the pharmaceutically acceptable excipient comprises a binder, a disintegrant, a filler, a surfactant, a solubilizer, a stabilizer, a lubricant, a wetting agent, a diluent, an anti-adherent, a glidant, or a pharmaceutically compatible carrier.
9. The method of claim 1, further comprising administering at least one acetylcholinesterase inhibitor.
10. The method of claim 1, wherein the neurodegenerative disorder is selected from the group consisting of global and focal ischemic and hemorrhagic stroke, head trauma, spinal cord injury, hypoxia-induced nerve cell damage, nerve cell damage caused by cardiac arrest or neonatal distress, epilepsy, anxiety, diabetes mellitus, multiple sclerosis, phantom limb pain, causalgia, neuralgias, herpes zoster, spinal cord lesions, hyper algesia, allodynia, Alzheimer's Disease, Huntington's disease, and Parkinson's disease.
11. The method of claim 10, wherein the neurodegenerative disorder is Alzheimer's disease.

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12. A method of inhibiting the formation and/or the progression of peripheral amyloidosis in a subject in need thereof, comprising administering to the subject a compound of formula (I):



wherein each of R<sub>1</sub>, R<sub>2</sub>, R<sub>4</sub>, R<sub>5</sub>, R<sub>6</sub>, R<sub>7</sub>, R<sub>11</sub>, R<sub>12</sub>, R<sub>15</sub>, and R<sub>16</sub>, independently, is hydrogen, alkyl, hydroxy, amino, carboxyl, oxo, sulfonic acid, or alkyl that is optionally inserted with -NH-, -N(alkyl)-, -O-, -S-, -SO-, -SO<sub>2</sub>-, -O-SO<sub>2</sub>-, -SO<sub>2</sub>-O-, -SO<sub>3</sub>-O-, -CO-, -CO-O-, -O-CO-, -CO-NR'-, or -NR'-CO-; R<sub>3</sub> is a substituent as disclosed at R<sub>3</sub> of the compounds listed in Table 1 and Fig. 1; each of R<sub>8</sub>, R<sub>9</sub>, R<sub>10</sub>, R<sub>13</sub>, and R<sub>14</sub>, independently, is hydrogen, alkyl, hydroxyalkyl, alkoxy, or hydroxy; and R<sub>17</sub> is a substituent as disclosed at R<sub>17</sub> of the compounds listed in Table 1 and Fig. 1.